

## ABSTRACT OF THE DISCLOSURE

5 A magnetron especially advantageous for low-pressure plasma sputtering or sustained self-sputtering having reduced area but full target coverage. The magnetron includes an outer pole face surrounding an inner pole face with a gap therebetween. The outer pole of the magnetron of the invention is smaller than that of a circular magnetron similarly extending from the center to the periphery of the target and has a substantially larger total magnetic intensity. Thereby, sputtering at low pressure and high ionization fraction is enabled.